

Zdenek Dohnalek

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

4,319
citations

37
h-index

63
g-index

103
ext. papers

4,609
ext. citations

7.1
avg, IF

5.39
L-index

#	Paper	IF	Citations
98	Formation of Gas-Phase Allyl Radicals from Glycerol on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2021 , 125, 7227-7239	3.8	
97	Conversion of Formic Acid on Single- and Nano-Crystalline Anatase TiO ₂ (101). <i>Journal of Physical Chemistry C</i> , 2021 , 125, 7686-7700	3.8	5
96	Binding and stability of MgO monomers on anatase TiO(101). <i>Journal of Chemical Physics</i> , 2021 , 154, 204703	3.9	0
95	Creating self-assembled arrays of mono-oxo (MoO) species on TiO(101) via deposition and decomposition of (MoO) oligomers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	5
94	Adsorption of ethane, ethene, and ethyne on reconstructed Fe ₃ O ₄ (001). <i>Surface Science</i> , 2021 , 714, 121932	1.8	0
93	Adsorption and reaction of methanol on FeO(001). <i>Journal of Chemical Physics</i> , 2020 , 152, 064703	3.9	7
92	Binding of Formic Acid on Anatase TiO ₂ (101). <i>Journal of Physical Chemistry C</i> , 2020 , 124, 20228-20239	3.8	14
91	Adsorption and Reaction of Methanol on Anatase TiO ₂ (101) Single Crystals and Faceted Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 24133-24145	3.8	10
90	Understanding the Binding of Aromatic Hydrocarbons on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2019 , 123, 16766-16777	3.8	9
89	Understanding Heterolytic H ₂ Cleavage and Water-Assisted Hydrogen Spillover on Fe ₃ O ₄ (001)-Supported Single Palladium Atoms. <i>ACS Catalysis</i> , 2019 , 9, 7876-7887	13.1	39
88	Low-Temperature Oxidation of Methanol to Formaldehyde on a Model Single-Atom Catalyst: Pd Atoms on Fe ₃ O ₄ (001). <i>ACS Catalysis</i> , 2019 , 9, 10977-10982	13.1	31
87	Formation of Supported Graphene Oxide: Evidence for Enolate Species. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5102-5109	16.4	8
86	Growth and Stability of Titanium Dioxide Nanoclusters on Graphene/Ru(0001). <i>Journal of Physical Chemistry B</i> , 2018 , 122, 640-648	3.4	4
85	Hydrogen adsorption and reaction on RuO ₂ (110). <i>Surface Science</i> , 2018 , 677, 264-270	1.8	8
84	Structural motifs of water on metal oxide surfaces. <i>Chemical Society Reviews</i> , 2017 , 46, 1785-1806	58.5	127
83	Direct Deoxygenation of Phenylmethanol to Methylbenzene and Benzyl Radicals on Rutile TiO ₂ (110). <i>ACS Catalysis</i> , 2017 , 7, 2002-2006	13.1	4
82	Probing equilibrium of molecular and deprotonated water on TiO(110). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 1801-1805	11.5	71

81	Formation of Metastable Water Chains on Anatase TiO ₂ (101). <i>Journal of Physical Chemistry C</i> , 2017 , 121, 20413-20418	3.8	21
80	Adsorption and Photodesorption of CO from Charged Point Defects on TiO(110). <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 4565-4572	6.4	14
79	Dynamics, Stability, and Adsorption States of Water on Oxidized RuO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18505-18515	3.8	9
78	Strong Temperature Dependence in the Reactivity of H ₂ on RuO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 2967-70	6.4	8
77	Temperature-programmed desorption study of NO reactions on rutile TiO ₂ (110)-1 \times 1. <i>Surface Science</i> , 2016 , 652, 148-155	1.8	4
76	Iso-oriented monolayer γ -MoO ₃ (010) films epitaxially grown on SrTiO ₃ (001). <i>Nanoscale</i> , 2016 , 8, 3119-247.7	7.7	19
75	Adsorption of small hydrocarbons on rutile TiO ₂ (110). <i>Surface Science</i> , 2016 , 650, 83-92	1.8	30
74	Light Makes a Surface Banana-Bond Split: Photodesorption of Molecular Hydrogen from RuO ₂ (110). <i>Journal of the American Chemical Society</i> , 2016 , 138, 8714-7	16.4	8
73	Interaction of Formaldehyde with the Rutile TiO ₂ (110) Surface: A Combined Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 12626-12636	3.8	40
72	Catalytic Chemistry on Oxide Nanostructures. <i>Springer Series in Materials Science</i> , 2016 , 251-280	0.9	
71	Cerium Oxide Nanoclusters on Graphene/Ru(0001): Intercalation of Oxygen via Spillover. <i>ACS Nano</i> , 2015 , 9, 8617-26	16.7	13
70	Low-Temperature Reductive Coupling of Formaldehyde on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015 , 119, 18452-18457	3.8	19
69	Imaging of Formaldehyde Adsorption and Diffusion on TiO ₂ (110). <i>Topics in Catalysis</i> , 2015 , 58, 103-113	2.3	25
68	Deprotonated Water Dimers: The Building Blocks of Segmented Water Chains on Rutile RuO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015 , 119, 23552-23558	3.8	28
67	Ammonia Formation from NO Reaction with Surface Hydroxyls on Rutile TiO ₂ (110)-1 \times 1. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 1130-1135	3.8	5
66	Tracking Site-Specific C \equiv C Coupling of Formaldehyde Molecules on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015 , 119, 14267-14272	3.8	21
65	Anticorrelation between surface and subsurface point defects and the impact on the redox chemistry of TiO ₂ (110). <i>ChemPhysChem</i> , 2015 , 16, 313-21	3.2	37
64	Ethanol Conversion on Cyclic (MO ₃) ₃ (M = Mo, W) Clusters. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 4869-4877	3.8	52

63	Dehydration, dehydrogenation, and condensation of alcohols on supported oxide catalysts based on cyclic (WO ₃) ₃ and (MoO ₃) ₃ clusters. <i>Chemical Society Reviews</i> , 2014 , 43, 7664-80	58.5	86
62	Adsorption, desorption, and displacement kinetics of H ₂ O and CO ₂ on TiO ₂ (110). <i>Journal of Physical Chemistry B</i> , 2014 , 118, 8054-61	3.4	39
61	Dimerization Induced Deprotonation of Water on RuO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3445-50	6.4	40
60	Molecular hydrogen formation from proximal glycol pairs on TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2014 , 136, 5559-62	16.4	15
59	Conversion of 1,2-Propylene Glycol on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 15339-15347	3.5	15
58	Conversion of 1,3-Propylene Glycol on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 23181-23182	3.5	15
57	Low-Temperature Desorption of N ₂ O from NO on Rutile TiO ₂ (110)-1 \times 1. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 9544-9550	3.8	7
56	Oxidation, Reduction, and Condensation of Alcohols over (MO ₃) ₃ (M = Mo, W) Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 22620-22634	3.8	35
55	Adsorption, Desorption, and Displacement Kinetics of H ₂ O and CO ₂ on Forsterite, Mg ₂ SiO ₄ (011). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 29091-29100	3.8	23
54	Dehydration and dehydrogenation of ethylene glycol on rutile TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 12180-6	3.6	21
53	Interaction of CO ₂ with oxygen adatoms on rutile TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 6190-5	3.6	12
52	Site-specific imaging of elemental steps in dehydration of diols on TiO ₂ (110). <i>ACS Nano</i> , 2013 , 7, 10414-10417	4.3	19
51	Importance of Diffusion in Methanol Photochemistry on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2012 , 116, 25465-25469	3.8	62
50	The effect of oxygen vacancies on the binding interactions of NH ₃ with rutile TiO ₂ (110)-1 \times 1. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 15060-5	3.6	14
49	Structure and Dynamics of CO ₂ on Rutile TiO ₂ (110)-1 \times 1. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 26323-26334	3.5	15
48	Unexpected Nondissociative Binding of N ₂ O on Oxygen Vacancies on a Rutile TiO ₂ (110)-1 \times 1. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 1145-1150	3.8	14
47	Alcohol Dehydration on Monooxo W ₂ O and Dioxo O ₂ W ₂ O Species. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 2168-72	6.4	18
46	OH Group Dynamics of 1,3-Propanediol on TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 3257-3263	3.15	15

45	Characterization of Nanoporous WO ₃ Films Grown via Ballistic Deposition. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 10649-10655	3.8	15
44	Preparation, Characterization, and Catalytic Properties of Tungsten Trioxide Cyclic Trimers on FeO(111)/Pt(111). <i>Journal of Physical Chemistry C</i> , 2012 , 116, 908-916	3.8	25
43	Reactive ballistic deposition of nanostructured model materials for electrochemical energy conversion and storage. <i>Accounts of Chemical Research</i> , 2012 , 45, 434-43	24.3	36
42	Growth of Ordered Ultrathin Tungsten Oxide Films on Pt(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5773-5783	3.8	38
41	Polymerization of Formaldehyde and Acetaldehyde on Ordered (WO ₃) ₃ Films on Pt(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 9692-9700	3.8	27
40	Determination of Absolute Coverages for Small Aliphatic Alcohols on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 22534-22539	3.8	69
39	Direct Observation of Site-Specific Molecular Chemisorption of O ₂ on TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 3524-3529	6.4	63
38	Reactivity of Fe ⁰ Atoms with Mixed CCl ₄ and D ₂ O Films over FeO(111). <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17136-17141	3.8	2
37	Formaldehyde Polymerization on (WO ₃) ₃ /TiO ₂ (110) Model Catalyst. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17017-17022	3.8	36
36	Water Interactions with Terminal Hydroxyls on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17080-17084	3.8	31
35	Formation of O adatom pairs and charge transfer upon O(2) dissociation on reduced TiO(2)(110). <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 6337-44	3.6	91
34	Thermally-driven processes on rutile TiO ₂ (110)-(1 $\bar{1}$): A direct view at the atomic scale. <i>Progress in Surface Science</i> , 2010 , 85, 161-205	6.6	269
33	Imaging hindered rotations of alkoxy species on TiO(2)(110). <i>Journal of the American Chemical Society</i> , 2009 , 131, 17926-32	16.4	37
32	Imaging Consecutive Steps of O ₂ Reaction with Hydroxylated TiO ₂ (110): Identification of HO ₂ and Terminal OH Intermediates. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 666-671	3.8	65
31	Reactivity of C ₂ Cl ₆ and C ₂ Cl ₄ Multilayers with Fe ⁰ Atoms over FeO(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10233-10241	3.8	4
30	Reactivity of Fe ⁰ Atoms and Clusters with D ₂ O over FeO(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 4960-4969	3.8	11
29	The effect of the incident collision energy on the porosity of vapor-deposited amorphous solid water films. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 4000-7	3.4	26
28	Reactivity of Fe ⁰ Atoms, Clusters, and Nanoparticles with CCl ₄ Multilayers on FeO(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1818-1829	3.8	18

27	Water as a Catalyst: Imaging Reactions of O ₂ with Partially and Fully Hydroxylated TiO ₂ (110) Surfaces. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1908-1916	3.8	84
26	Reactivity of FeO(111)/Pt(111) with Alcohols. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 20020-20028	3.8	18
25	Chemical Reactivity of Reduced TiO ₂ (110): The Dominant Role of Surface Defects in Oxygen Chemisorption. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 12407-12411	3.8	123
24	No confinement needed: observation of a metastable hydrophobic wetting two-layer ice on graphene. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12838-44	16.4	161
23	Infrared spectroscopy and optical constants of porous amorphous solid water. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 4131-40	3.4	27
22	Catalytic dehydration of 2-propanol on (WO ₃) ₃ clusters on TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2008 , 130, 5059-61	16.4	72
21	Transient Mobility of Oxygen Adatoms upon O ₂ Dissociation on Reduced TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2008 , 112, 2649-2653	3.8	111
20	Intrinsic diffusion of hydrogen on rutile TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2008 , 130, 9080-8	16.4	114
19	Understanding How Surface Morphology and Hydrogen Dissolution Influence Ethylene Hydrogenation on Palladium. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 15796-15801	3.8	8
18	Vacancy-assisted diffusion of alkoxy species on rutile TiO ₂ (110). <i>Physical Review Letters</i> , 2008 , 101, 156103	10.3	30
17	Direct Visualization of 2-Butanol Adsorption and Dissociation on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2007 , 111, 3021-3027	3.8	58
16	Surface Chemistry of 2-Propanol on TiO ₂ (110): Low- and High-Temperature Dehydration, Isotope Effects, and Influence of Local Surface Structure. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 11059-11067	3.8	67
15	Inductive Effect of Alkyl Chains on Alcohol Dehydration at Bridge-bonded Oxygen Vacancies of TiO ₂ (110). <i>Catalysis Letters</i> , 2007 , 119, 1-4	2.8	43
14	Imaging intrinsic diffusion of bridge-bonded oxygen vacancies on TiO ₂ (110). <i>Physical Review Letters</i> , 2007 , 99, 126105	7.4	83
13	Reactive Ballistic Deposition of Porous TiO ₂ Films: Growth and Characterization. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 4765-4773	3.8	56
12	Crystalline ice growth on Pt(111) and Pd(111): nonwetting growth on a hydrophobic water monolayer. <i>Journal of Chemical Physics</i> , 2007 , 126, 114702	3.9	64
11	Formation of monodisperse (WO ₃) ₃ clusters on TiO ₂ (110). <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 4786-9	16.4	88
10	Layer-by-layer growth of thin amorphous solid water films on Pt(111) and Pd(111). <i>Journal of Chemical Physics</i> , 2006 , 125, 44713	3.9	47

9	n-alkanes on Pt(111) and on C(0001)Pt(111): chain length dependence of kinetic desorption parameters. <i>Journal of Chemical Physics</i> , 2006 , 125, 234308	3.9	153
8	Imaging adsorbate O-H bond cleavage: methanol on TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2006 , 128, 4198-9	16.4	189
7	Physisorption of N ₂ , O ₂ , and CO on fully oxidized TiO ₂ (110). <i>Journal of Physical Chemistry B</i> , 2006 , 110, 6229-35	3.4	143
6	Cryogenic CO ₂ formation on oxidized gold clusters synthesized via reactive layer assisted deposition. <i>Journal of the American Chemical Society</i> , 2005 , 127, 14592-3	16.4	30
5	Methane adsorption and dissociation and oxygen adsorption and reaction with CO on Pd nanoparticles on MgO(1 0 0) and on Pd(1 1 1). <i>Surface Science</i> , 2005 , 591, 90-107	1.8	44
4	n-alkanes on MgO(100). I. Coverage-dependent desorption kinetics of n-butane. <i>Journal of Chemical Physics</i> , 2005 , 122, 164707	3.9	105
3	Crystalline ice growth on Pt(111): observation of a hydrophobic water monolayer. <i>Physical Review Letters</i> , 2005 , 95, 166102	7.4	180
2	n-alkanes on MgO(100). II. Chain length dependence of kinetic desorption parameters for small n-alkanes. <i>Journal of Chemical Physics</i> , 2005 , 122, 164708	3.9	143
1	Molecular Beam Studies of Nanoscale Films of Amorphous Solid Water. <i>Springer Series in Cluster Physics</i> , 2003 , 337-357		17